

What is claimed is:

- 1    1. A computer-readable medium carrying one or more sequences of instructions for  
2       synchronizing email between multiple computers, wherein execution of the one or  
3       more sequences of instructions by one or more processors causes the one or more  
4       processors to perform a method comprising the steps of:  
5           reading a first set of messages from a portable computer into a first personal  
6           computer;  
7           identifying an outgoing message in the first set of messages to be delivered from  
8               the first personal computer to a mail server;  
9           identifying on the first personal computer a second set of messages previously  
10          retrieved from a server, the second set of messages having, at least once  
11          prior to a previous event, a first message that matched a corresponding  
12          message in the first set of messages;  
13          comparing the first set of messages with the second set of messages to identify if  
14          at least the corresponding message in the first set of messages that matched  
15          the first message in the second set of messages was deleted or modified  
16          after the previous event; and  
17          automatically signaling the outgoing message to the mail server.
  
- 1    2. The computer-readable medium of claim 1, wherein the second set of messages  
2       include flags to identify whether each message in the second set of messages was  
3       added to or deleted from the second set of messages since a previous event.

1    3. The computer-readable medium of claim 1, the method further comprising  
2       identifying if any messages in the second set of messages were modified on the  
3       first personal computer after the previous event, then replacing select messages in  
4       the first set of messages with the modified messages.

1    4. The computer-readable medium of claim 1, the method further comprising  
2       causing the first message in the second set of messages to be deleted from the  
3       second set of messages if the corresponding message has been deleted from the  
4       first set of messages since the previous event.

1    5. The computer-readable medium of claim 1, the method further comprising  
2       causing the first message in the second set of messages to be modified if the  
3       corresponding message has been modified on the portable computer since the  
4       previous event.

1    6. The computer-readable medium of claim 1, the method further comprising  
2       comparing the first set of messages to the second set of messages to identify if the  
3       second set of messages includes at least a first new message added to the second  
4       set of messages after the previous event.

1       7. The computer-readable medium of claim 6, the method further comprising adding  
2           the first new message to the first set of messages, then signaling the first set of  
3           messages to the portable computer.

1 8. The computer-readable medium of claim 1, the method further comprising  
2 signaling the first set of messages to the portable computer after comparing the  
3 first set of messages and the second set of messages.

1        9. A computer-readable medium carrying one or more sequences of instructions for  
2                 synchronizing email on two computer systems, wherein execution of the one or  
3                 more sequences of instructions by one or more processors causes the one or more  
4                 processors to perform a method comprising the steps of:  
5                 reading a first set of email messages from a portable computer;  
6                 reading a second set of email messages from an email server;  
7                 comparing, on a second computer, said second set of email messages to said first  
8                 set of email messages to determine new and deleted messages in said  
9                 second set of email messages since a previous synchronization;  
10                 adding new messages from said second set of email messages to said first set of  
11                 email messages;  
12                 deleting messages in said first set of email messages that were deleted from said  
13                 second set of email messages;  
14                 identifying an outgoing message in the first set of email messages; and

15 sending the outgoing message to an intended recipient from an email application  
16 on the second computer.

1 10. The computer-readable medium of claim 9, wherein said first set of email  
2 messages from said portable computer include flags that determine if said email  
3 messages are new, modified, or deleted since the previous synchronization.  
4

1 11. The computer-readable medium of claim 10, the method further comprising the  
2 steps of:  
3 adding new messages from said first set of email messages to said second set of  
4 email messages; and  
5 deleting messages in said second set of email messages that were deleted from  
6 said first set of email messages.

1 12. The computer-readable medium of claim 9, the method further comprising the  
2 step of:  
3 comparing said first set of email messages from said portable computer with a  
4 third set of email messages from the previous synchronization to determine  
5 new, modified, and deleted email messages in said first set of email  
6 messages since the previous synchronization.

1 13. The computer-readable medium of claim 12, the method further comprising the  
2 steps of:

3 adding new messages from said first set of email messages to said second set of  
4 email messages; and  
5 deleting messages in said second set of email messages that were deleted from  
6 said first set of email messages.

1 14. A computer-readable medium carrying one or more sequences of instructions for  
2 exchanging data between a portable computer and a second computer, wherein  
3 execution of the one or more sequences of instructions by one or more processors  
4 causes the one or more processors to perform a method comprising the steps of:  
5 receiving, on the second computer, a first signal from the portable computer to  
6 exchange data with the portable computer;  
7 in response to the first signal, synchronizing a first set of messages on the portable  
8 computer with a second set of messages on the second computer;  
9 receiving, on the second computer, a second signal from the portable computer to  
10 send data from the portable computer through the second computer to an  
11 intended recipient;  
12 in response to the second signal, receiving the data from the portable computer;  
13 and  
14 sending the data to the intended recipient; and  
15 wherein the step of receiving the data from the portable computer is performed  
16 concurrently with the step of synchronizing a first set of messages on the  
17 portable computer with a second set of messages on the second computer.

1    15. The computer-readable medium of Claim 14, wherein the step of synchronizing a  
2       first set of messages on the portable computer includes synchronizing the first set  
3       of messages over a first communication connection between the portable  
4       computer and the second computer.

1    16. The computer-readable medium of Claim 15, wherein the step of receiving the  
2       data from the portable computer includes receiving the data over a second  
3       communication connection.

1    17. The computer-readable medium of claim 14, wherein the step of sending the data  
2       to the intended recipient includes sending an email message composed on the  
3       portable computer.

1    18. The computer-readable medium of Claim 17, wherein the step of sending an email  
2       message includes using an email program that operates under a Messaging  
3       Application Programming Interface (MAPI) protocol.

1    19. The computer-readable medium of Claim 14, wherein the step of synchronizing a  
2       first set of messages on the portable computer with a second set of messages on  
3       the second computer includes detecting that a user deleted a message that exists in  
4       one of the first set of messages or the second set of messages, and then deleting  
5       that message from the one of the first set of messages or the second set of  
6       messages.

1    20. The computer-readable medium of Claim 14, wherein the step of synchronizing a  
2       first set of messages on the portable computer with a second set of messages on  
3       the second computer includes detecting that a user altered a message from one of  
4       the first set of messages or the second set of messages, and then altering that  
5       message on the other one of the first set of messages or the second set of  
6       messages.

1    21. The computer-readable medium of Claim 14, wherein the step of synchronizing a  
2       first set of messages on the portable computer with a second set of messages on  
3       the second computer includes determining that a new message exists on one of the  
4       portable computer or the second computer, and adding that message to the other of  
5       the portable computer or second computer.

1    22. The computer-readable medium of Claim 14, wherein the step of receiving the  
2       data from the portable computer includes receiving at least a part of an email  
3       message for the intended recipient, and wherein the method further comprises  
4       inspecting the email message before sending the email message to the intended  
5       recipient.

1    23. A computer-readable medium carrying one or more sequences of instructions for  
2       exchanging data between a portable computer and a second computer, wherein

3 execution of the one or more sequences of instructions by one or more processors  
4 causes the one or more processors to perform a method comprising the steps of:  
5 receiving, on the second computer, a first signal from the portable computer to  
6 exchange data with the portable computer;  
7 in response to the first signal, synchronizing a first set of messages on the portable  
8 computer with a second set of messages on the second computer;  
9 receiving, on the second computer, a second signal from the portable computer to  
10 send data from the portable computer through the second computer to an  
11 intended recipient;  
12 in response to the second signal, receiving the data from the portable computer;  
13 and  
14 sending the data to the intended recipient;  
15 wherein the step of synchronizing a first set of messages on the portable computer  
16 includes synchronizing the first set of messages over a first  
17 communication connection between the portable computer and the second  
18 computer;  
19 wherein the step of receiving the data from the portable computer includes  
20 receiving the data over a second communication connection; and  
21 wherein the first communication connection is different than the second  
22 communication connection.

1 24. The computer-readable medium of claim 23, wherein the step of receiving the  
2 data from the portable computer is performed concurrently with the step of

3       synchronizing a first set of messages on the portable computer with a second set  
4       of messages on the second computer.

1     25. The computer-readable medium of claim 23, wherein the step of sending the data  
2       to the intended recipient includes sending an email message composed on the  
3       portable computer.

1     26. The computer-readable medium of Claim 23, wherein the step of sending an email  
2       message includes using an email program that operates under a Messaging  
3       Application Programming Interface (MAPI) protocol.

1     27. The computer-readable medium of Claim 23, wherein the step of synchronizing a  
2       first set of messages on the portable computer with a second set of messages on  
3       the second computer includes detecting that a user deleted a message that exists in  
4       one of the first set of messages or the second set of messages, and then deleting  
5       that message from the one of the first set of messages or the second set of  
6       messages.

1     28. The computer-readable medium of Claim 23, wherein the step of synchronizing a  
2       first set of messages on the portable computer with a second set of messages on  
3       the second computer includes detecting that a user altered a message from one of  
4       the first set of messages or the second set of messages, and then altering that

5 message on the other one of the first set of messages or the second set of  
6 messages.

1 29. The computer-readable medium of Claim 23, wherein the step of synchronizing a  
2 first set of messages on the portable computer with a second set of messages on  
3 the second computer includes determining that a new message exists on one of the  
4 portable computer or the second computer, and adding that message to the other of  
5 the portable computer or second computer.

1 30. The computer-readable medium of Claim 23, wherein the step of receiving the  
2 data from the portable computer includes receiving at least a part of an email  
3 message for the intended recipient, and wherein the method further comprises  
4 inspecting the email message before sending the email message to the intended  
5 recipient.

1 31. A method for synchronizing messages on a portable computer with a personal  
2 computer, the method comprising:  
3 detecting the personal computer connected to the portable computer;  
4 identifying a set of existing messages on the portable computer, the set of existing  
5 messages including an outgoing message;  
6 signaling the outgoing message to the personal computer for delivery to a mail  
7 server;

8 receiving a set of incoming messages previously delivered to the personal  
9 computer; and  
10 comparing the set of existing messages with the set of incoming messages to  
11 identify differences between the set of existing messages and the set of  
12 incoming messages.

1 32. The method of claim 31, wherein detecting the personal computer includes  
2 detecting the personal computer across a serial port.

1 33. The method of claim 31, wherein identifying a set of existing messages includes  
2 identifying messages previously received from the personal computer.

1 34. The method of claim 33, wherein identifying a set of existing messages includes  
2 identifying messages that were previously synchronized with the personal  
3 computer.

1 35. The method of claim 31, wherein identifying a set of existing messages includes  
2 identifying messages received on the portable computer that were not previously  
3 synchronized with the personal computer.

1 36. The method of claim 31, wherein signaling the outgoing message to the personal  
2 computer for delivery to a mail server includes signaling a message composed on  
3 the portable computer for another end user.

1    37. The method of claim 31, further comprising synchronizing the set of existing  
2        messages with the set of incoming messages so that the set of existing messages  
3        and the set of incoming messages match one another.

1    38. The method of claim 37, wherein synchronizing the set of existing messages with  
2        the set of incoming messages includes replacing the set of existing messages with  
3        the set of incoming messages.

1    39. The method of claim 37, wherein synchronizing the set of existing messages with  
2        the set of incoming messages includes identifying messages in the set of incoming  
3        messages that were added since the previous synchronization.

1    40. The method of claim 37, wherein synchronizing the set of existing messages with  
2        the set of incoming messages includes identifying messages in the set of existing  
3        messages that were deleted from the set of incoming messages.

1    41. A method for exchanging messages using a personal computer, the method  
2        comprising:  
3            reading a first set of messages from a portable computer into the personal  
4            computer;  
5            identifying an outgoing message in the first set of messages to be delivered from  
6            the personal computer to a mail server; and

7           signaling the outgoing message to the mail server.

1    42.   The method of claim 41, further comprising identifying on the first computer a  
2       second set of messages previously retrieved from a server.

1    43.   The method of claim 42, further comprising making the first set of messages  
2       match the second set of messages.

1    44.   The method of claim 43, further comprising signaling the first set of messages to  
2       the portable computer after matching the first set of messages to the second set of  
3       messages.